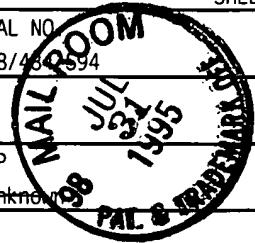


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| FORM PTO-1449                                    | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY. DOCKET NO.<br>OBRIEN.002DV2  | SERIAL NO.<br>08/484,594                                   |
| INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT |  | APPLICANT<br>O'Brien, J.S., et al. | JUL 31 1995<br>U.S. PATENT & TRADEMARK OFFICE<br>MAIL ROOM |
| (USE SEVERAL SHEETS IF NECESSARY)                |  | FILING DATE<br>June 7, 1995        | GROUP 1012<br>Unknown                                      |

| EXAMINER<br>INITIAL | OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) |  |
|---------------------|--|--|
| RCW                 | A  | Aderka, D. et al. IL-6 inhibits lipopolysaccharide-induced tumor necrosis factor production... Jour. of Immunol. 143(11):3517-3523 (1989).                 |
| ↓                   | B  | Banks, W., et al. Permeability of the blood-brain barrier to peptides: an approach... Peptides 13:1289-1294 (1992).  |
| ↓                   | C  | Barde, Y.A. Trophic factors and neuronal survival. Neuron 1:1525-1534 (1989).  |
| ↓                   | D  | Baringe, M. Neurotrophic factors enter the clinic. Science 264:772-774 (1994).   |
| ↓                   | E  | Bazan, J. Neuropoietic cytokines in the hematopoietic fold. Neuron 7:197-208, (1991).  |
| ↓                   | F  | Bradová, V. et al. Prosaposin deficiency: further characterization of the sphingolipid activator protein-deficient sibs. Human Genetics 92:143-152 (1993). |

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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| FORM PTO-1449                                    | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY. DOCKET NO.<br>OBRIEN.002DV2  | SERIAL NO.<br>08/430,594                              |
| INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT |  | APPLICANT<br>O'Brien, J.S., et al. | GROUP<br>1818<br>MAIL ROOM<br>JUL 21 1995<br>PTO-1449 |
| (USE SEVERAL SHEETS IF NECESSARY)                |  | FILING DATE<br>June 7, 1995        |   |



**U.S. PATENT DOCUMENTS**

## FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

| INITIAL |   | OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT REFERENCES, ETC.)  |  |
|---------|---|--|--|
| RCH     | G | Dewji, N. et al., Nucleotide sequence of cloned cDNA for human sphingolipid activator... Proc. Natl. Acad. Sci. USA. 84:8652-8656 (1987).  |  |
|         | H | Dewji, N. et al., Molecular cloning of the sphingolipid activator protein... Biochem. and Biophys. Res. Commun. 134(2):989-994 (1986).   |  |
|         | I | Fonnum, A rapid radiochemical method for the determination of choline acetyltransferase. Jour. of Neurochemistry 24:407-409 (1975).  |  |
|         | J | Francis, M. et al., Immunological properties of hepatitis B core antigen fusion proteins. Proc. Natl. Acad. Sci. 87:2545-2549 (1990).  |  |
|         | K | Fürst, W. et al., The complete amino-acid sequences of human ganglioside GM2 activator protein and cerebroside sulfate activator protein. Eur. J. Biochem. 192:709-714 (1990).         |  |
|         | L | Gurney, M. et al., Induction of motor neuron sprouting <i>in vivo</i> by ciliary neurotrophic factor and basic fibroblast growth factor. Jour. of Neuroscience 12(8):3241-3247 (1992). |  |

**EXAMINER**

P. J. Taylor

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\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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|  | APPLICANT  | O'Brien, J.S., et al.                                    |                          |
|  | FILING DATE  | GROUP<br>18/8<br>Unknown                                 |                          |
|  | June 7, 1995   | MAIL ROOM<br>JUL 31 1995<br>98<br>PAT. & TRADEMARK<br>OF |                          |

| EXAMINER INITIAL | OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) |  |
|------------------|--|--|
| RCW              | M  | Hefti, F. et al., Function of neurotrophic factors in the adult and aging brain... Neurobiology of Aging 10:515-533 (1989).                        |
|                  | N  | Henderson, C. et al., Neurotrophic factors in development and plasticity of spinal neurons. Restorative Neurology and Neuroscience 5:15-28 (1993). |
|                  | O  | Hiraiwa, M. et al., Binding and transport of gangliosides by prosaposin. Proc. Natl. Acad. Sci. USA, 89:11254-11258 (1992).                        |
|                  | P  | Hiraiwa, M. et al., Isolation, characterization, and proteolysis of human prosaposin... Arch. Biochem. Biophys. 304(1)110-116 (1993).              |
|                  | Q  | Hofér, M. et al.. Brain-derived neurotrophic factor prevents neuronal death in vivo. Nature 331:261-262 (1988).                                    |
|                  | R  | Ip, N. et al., The neurotrophins and CNTP: specificity of action toward PNS and CNS neurons. J. Physiol.. 85:123-130 (1991).                       |

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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| FORM PTO-1449                                    | U. S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY. DOCKET NO.<br>OBRIEN.002DV2  | SERIAL NO.<br>08/484,594 |
| INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT |   | APPLICANT<br>O'Brien, J.S., et al. |                          |
| (USE SEVERAL SHEETS IF NECESSARY)                |   | FILING DATE<br>June 7, 1995        | GROUP<br>118<br>URTRTOWN |


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**U.S. PATENT DOCUMENTS**

## FOREIGN PATENT DOCUMENTS

EXAMINER  
INITIAL

**OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

- | INITIAL |   |  |
|---------|---|--|
| PCN     | S | Kishimoto, Y. et al., Saposins: structure, function, distribution, and molecular genetics. Jour. of Lipid Research. 33:1255-1268 (1992).   |
|         | T | Kleinschmidt, T. et al. Complete amino-acid sequence and carbohydrate content of the naturally occurring glucosylceramide activator protein... Biological Chemistry Hoppe-Seyler 368(12):1573-1578 (1987). |
|         | U | Kondoh, K. et al. Distribution of prosaposin-like immunoreactivity in rat brain. Jour. of Comparative Neurology 334:590-602 (1993).  |
|         | V | Kondoh, K. et al. Isolation and characterization of prosaposin from human milk. Biochem. and Biophys. Res. Commun. 181(1):286-292 (1991).  |
|         | W | Krystal, G. A simple microassay for erythropoietin based on 3H-thymidine incorporation.... Exp. Hematol. 11(7):649-660 (1983).   |
|         | X | Kwon, Y. et al., Systemic injections of ciliary neurotrophic factor induce sprouting by adult motor neurons. Neuroreport 5:789-792 (1994).   |

**EXAMINER**

R. Hayes

**DATE CONSIDERED**

7/17/96

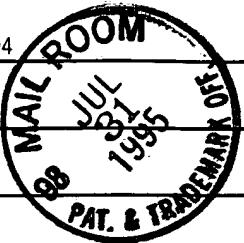
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| INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT |   | APPLICANT<br>O'Brien, J.S., et al. |                          |
|  |   | FILING DATE<br>June 7, 1995        | GROUP<br>1818<br>Unknown |
| (USE SEVERAL SHEETS IF NECESSARY)                |   |                                    |                          |

| EXAMINER<br>INITIAL | OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) |  |
|---------------------|--|--|
| RCN                 | Y  | Lamontagne, S. et al. Modulation of human saposin B sphingolipid-binding specificity by alternative splicing. Jour. of Biol. Chem. 269:20528-20532 (1994). |
|                     | Z  | Lin, L. et al.. Purification, cloning, and expression of ciliary neurotrophic factor (CNTF). Science 246:1023-1025, (1989).                                |
|                     | AA   | Lindsay, R. et al.. The neurotrophin family of NGF-related neurotrophic factors. Restorative Neurology and Neuroscience 2:211-220 (1991).                  |
|                     | BB   | Maisonpierre, P. et al.. Neurotrophin-3: a neurotrophic factor related to NGF and BDNF. Science, 247:1446-1451 (1990).                                     |
|                     | CC   | Morimoto, S. et al.. Distribution of saposin proteins (sphingolipid...). Proc. Natl. Acad. Sci. USA, 87:3493-3497 (1990).                                  |
|                     | DD   | Morimoto, S. et al.. Saposin A: Second cerebrosidase activator protein. Proc. Natl. Acad. Sci. 86:3389-3393 (1989).  |

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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|  |  | APPLICANT<br>O'Brien, J.S., et al. |                          |
|  |  | FILING DATE<br>June 7, 1995        | GROUP 18<br>Unknown      |



## U.S. PATENT DOCUMENTS

## FOREIGN PATENT DOCUMENTS

EXAMINER  
INITIAL

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

|     |    |  |
|-----|----|--|
| RCK | EE | Morimoto, S. et al., Saposin D: A sphingomyelinase activator. Biochemical and Biophysical Research Communications 156(1):403-410 (1988). |
|     | FF | O'Brien, J. et al.. Identification of prosaposin as a neurotrophic factor. Proc. Natl. Acad. Sci. 91(20):9593-9596 (1994).               |
|     | GG | O'Brien, J. et al.. Isolation and characterization of prosaposin...FASEB Jour. 6(4):A969 (1992).   |
|     | HH | O'Brien, J. et al.. Saposin proteins: structure, function, and role in human lysosomal... FASEB Jour. 5:301-308 (1991).                  |
| ↓   | II | O'Brien, J. et al.. Coding of two sphingolipid activator proteins (SAP-1 and SAP-2)... Science 241:1098-1101 (1988).                     |
|     | JJ | Priestle, J.P. et al.. Crystallographic refinement of interleukin...Proc. Natl. Acad. Sci. 86:9667-9671 (1989).                          |

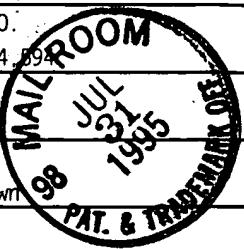
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| INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT<br><br>(USE SEVERAL SHEETS IF NECESSARY) |  | APPLICANT<br>O'Brien, J.S., et al. | GROUP<br>1810<br>UNKNOWN |
|   |  | FILING DATE<br>June 7, 1995        |                          |



## U.S. PATENT DOCUMENTS

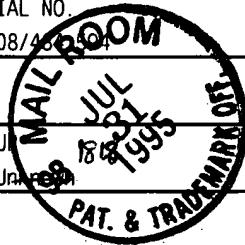
## FOREIGN PATENT DOCUMENTS

**OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

|         |    |   |
|---------|----|---|
| INITIAL |    |   |
| RKH     | KK | Purves, D. et al.. Trophic regulation of nerve cell morphology and innervation... Nature. 336:123-128 (1988).   |
|         | LL | Rich, K. et al.. Nerve growth factor protects adult sensory neurons from cell death... Jour. of Neurocytology 16:261-268 (1987).  |
|         | MM | Rorman, E. et al.. Structure and evolution of the human prosaposin chromosomal gene. Genomics 12(2):312-318 (1992).   |
|         | NN | Sano, A. et al.. Protection by prosaposin against ischemia-induced learning disability and neuronal loss. Biochem. and Biophys. Res. Commun. 204(2):994-1000 (1994).                        |
|         | OO | Sano, A. et al.. Saposin-C from bovine spleen; complete amino acid sequence and relation between the structure and its biological activity. Biochim. et Biophys. Acta 1120(1):75-80 (1991). |
|         | PP | Satomi, D. Developmental changes of glutamate decarboxylase and 2'.3'-cyclic nucleotide... Zoological Science 9:127-132 (1992).   |

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

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| FORM PTO-1449                                    | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE | ATTY. DOCKET NO.<br>OBRIEN.002DV2  | SERIAL NO.<br>08/435,504   |
| INFORMATION DISCLOSURE STATEMENT<br>BY APPLICANT |  | APPLICANT<br>O'Brien, J.S., et al. | MAIL ROOM<br>JUL 17 1995<br>GROUP 1<br>UNPAID<br>SEARCHED<br>INDEXED<br>FILED<br>JUL 17 1995<br>SEARCHED<br>INDEXED<br>FILED |
| (USE SEVERAL SHEETS IF NECESSARY)                |  | FILING DATE<br>June 7, 1995        |  |



**U.S. PATENT DOCUMENTS**

## FOREIGN PATENT DOCUMENTS

EXAMINER  
INITIAL

**OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

|          |   |
|----------|---|
| RCH<br>↓ | <p>QQ Soeda, S. et al., Binding of cerebrosides and sulfatides to saposins A-D*. Jour. of Biol. Chem. 268(25):18519-18523 (1993).</p> <p>RR Sprang, S. et al.. Cytokine structural taxonomy and mechanisms of receptor engagement. Current Opinion in Structural Biology. 3:815-827 (1993).</p> <p>SS Triguero, D. et al.. Capillary depletion method for quantification of blood-brain barrier transport of circulating peptides and plasma proteins. J. of Neurochem., 54(6)1882-1888 (1990).</p> |
|          |   |

**EXAMINER**

R) / Yates

**DATE CONSIDERED**

7/17/96

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.